Abstract

The present invention relates to a general-purpose programmable packet-processing platform for accelerating network infrastructure applications which have been structured so as to separate the stages of classification and action. Network packet classification, execution of actions upon those packets, management of buffer flow, encryption services, and management of Network Interface Controllers are accelerated through the use of a multiplicity of specialized modules. A language interface is defined for specifying both stateless and stateful classification of packets and to associate actions with classification results in order to efficiently utilize these specialized modules.